

I. AMENDMENTS TO THE CLAIMS:

Kindly amend claims 16 and 19 as follows.

The following claims will replace all prior versions, or listings, of claims in the above-captioned application.

Listing of Claims:

1. (Previously Presented) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

allowing each of the processing modules to compare values of the second list with values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a value of the first list by one when a value of the second list is identical to the value of the first list.

2. (Previously Presented) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an

information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of the pairs of value and the number of value transmitted to each of the processing modules from the other processing modules;

allowing each of the processing modules to compare values of the second list with values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a value of the first list by the number of the values corresponding to a value of the second list, when the value of the second list is identical to the value of the first list.

3. (Previously Presented) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

allowing each of the processing modules to compare values of the second list with values of the first list; and

allowing each of the processing modules to increase the count of a value of the first list that ranks immediately next to a value of the second list, by one, when the value of the first list ranks lower than the value of the second list.

4. (Previously Presented) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of the pairs of a value and the number of value transmitted to each of the processing modules from the other processing module;

allowing each of the processing modules to compare values of the second list with values of the first list; and

allowing each of the processing modules to increase a counter corresponding to a value of the first list ranked immediately next to a value in the second list by the number of the values corresponding to the value of the second list, when the value of the first list ranks lower than the value of the second list.

5. (Previously Presented) An information processing method of transmitting/receiving and processing data among a plurality of processing modules in an information processing system in which the plurality of processing modules, each having a memory for storing a list composed of values, is logically connected to one another in a loop, the method comprising the steps of:

allowing each of the processing modules to transmit a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

allowing each of the processing modules to receive at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

allowing each of the processing modules to cancel a value of the second list when the value of the second list exists in the first list, and, when identical values exist in two or more second lists, allowing each of the processing modules to cancel the value of one or more second lists that appear later among the two or more second lists; and

allowing each of the processing modules to increase a counter corresponding to a value of the first list that ranks immediately next to the value of the second list, by one, when the value of the first list ranks lower than the value of the second list.

6. (Previously Presented) The information processing method according to Claim 1, wherein each of the processing modules stores table-format data represented by an array of records including field values contained in an information field in the memory in a form of a value list in which the field values are stored in order of field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and

wherein said list composed of the values is said value list that constructs the table-format data.

7. (Previously Presented) An information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a means for receiving at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

a means for comparing values of the second list with values of the first list; and

a means that, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by one.

8. (Previously Presented) An information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a means for receiving at least one second list composed of the pairs of values and the number of value transmitted to each of the processing modules from the other processing modules;

a means for comparing values of the second list with values of the first list; and

a means that, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by a number of the values corresponding to the identical value of the second list.

9. (Previously Presented) An information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

a means for transmitting a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a means for receiving at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

a means for comparing values of the second list with values of the first list; and

a means that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that ranks immediately next to the value of the second list, by one.

10. (Previously Presented) An information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values,

and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

 a means for transmitting a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to the other processing modules in the information processing system;

 a means for receiving at least one second list composed of the pairs of value and the number of value transmitted to each of the processing modules from the other processing modules;

 a means for comparing values of the second list with values of the first list; and

 a means that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list by the number of the values corresponding to the value of the second list.

11. (Previously Presented) An information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, each of the processing modules comprising:

 a means for transmitting a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

 a means for receiving at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

a means that, when a value of the second list exists in the first list, cancels the value of the second list, and, when identical values exist in two or more second lists, cancels the value of one or more second lists that appear later among the two or more second lists; and

a means that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that ranks immediately next to the value of the second list, by one.

12. (Previously Presented) The information processing system according to Claim 7, wherein each of the processing modules comprises the memory that stores table-format data represented by an array of records including field values contained in an information field in a form of a value list in which the field values are stored in order of field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and
wherein said list composed of the values is the value list that constructs the table-format data.

13. (Previously Presented) A program for embodying the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprises:

a function that transmits a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a function that receives at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

a function that compares values of the second list with values of the first list; and

a function that, when a value of a second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by one.

14. (Previously Presented) A program for embodying the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprises:

a function that transmits a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a function that receives at least one second list composed of the pairs of value and the number of value transmitted to each of the processing modules from the other processing modules;

a function that compares values of the second list with values of the first list; and

a function that, when a value of the second list is identical to a value of the first list, increases a counter corresponding to the identical value of the first list by the number of the values corresponding to the value of the second list.

15. (Previously Presented) A program for embodying the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprises:

a function that transmits a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a function that receives at least one second list composed of values transmitted to each of the processing modules from the other processing modules;

a function that compares values of the second list with values of the first list; and

a function that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that ranks immediately next to the value of the second list, by one.

16. (Currently Amended) A program for embodying the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and

transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprises:

 a function that transmits a first list composed of pairs of a value and a number of value stored in the memory of each of the processing modules to modules to the other processing modules in the information processing system;

 a function that receives at least one second list composed of the pairs of value and the number of value transmitted to each of the processing modules from the other processing modules;

 a function that compares values of the second list with values of the first list; and

 a function that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list ranked immediately next to the value in the second list by the number of the values corresponding to the value of the second list.

17. (Previously Presented) A program for embodying the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing modules, the functions being executed by a computer of each of the processing modules, and the program comprises:

 a function that transmits a first list composed of values stored in the memory of each of the processing modules to the other processing modules in the information processing system;

a function that receives at least one second list composed of values transmitted to each of the processing modules from other processing modules;

a function that, when a value of the second list exists in the first list, cancels the value of the second list, and, when identical values exist in two or more second lists, cancels the identical value of one or more second lists that appears later among the two or more second lists; and

a function that, when a value that ranks lower than a value of the second list exists in the first list, increases a counter corresponding to the value of the first list that ranks immediately next to the value of the second list, by one.

18. (Previously Presented) The program according to Claim 13, wherein each of the processing modules comprises a memory that stores table-format data represented by an array of records including field values contained in an information field in a form of a value list in which the field values are stored in order of field value numbers corresponding to the field values and an array of pointers in which information for specifying the field value numbers is stored in order of records, and

wherein said list composed of the values is said value list that constructs the table-format data.

19. (Currently Amended) A computer-readable recording medium having ~~the program according to Claim 13 recorded thereon, wherein the program embodies the following functions in an information processing system that includes a plurality of processing modules, each having a memory for storing a list composed of values, and a transmitting path for logically connecting the plurality of processing modules to one another in a loop, and transmits/receives and processes data among the plurality of processing~~

modules, wherein the functions are executed by a computer of each of the processing
modules that are operably connected to the computer-readable recording medium so as to
execute the program recorded on the computer-readable recording medium, and the program
comprises:

a function that transmits a first list composed of values stored in the memory of each
of the processing modules to the other processing modules in the information processing
system;

a function that receives at least one second list composed of values transmitted to
each of the processing modules from the other processing modules;

a function that compares values of the second list with values of the first list; and

a function that, when a value of a second list is identical to a value of the first list,
increases a counter corresponding to the identical value of the first list by one.